

WHAT IS CLAIMED IS:

1. Process for the obtainment of enantiomerically enriched 3-aminopentane-
nitrile or its salts from racemic 3-aminopentanenitrile comprising
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 - 1) reacting racemic 3-aminopentanenitrile with an enantiomerically
enriched organic acid with the formation of two diastereomeric
salts of 3-aminopentanenitrile and the organic acid,
 - 2) separating one diastereomeric salt from the reaction mixture and
10 3) converting the separated diastereomeric salt into the
enantiomerically enriched 3-aminopentanenitrile or its salts.
2. Process according to Claim 1, characterized in that the enantiomerically
enriched organic acid employed is an enantiomerically enriched carboxylic
15 acid, enantiomerically enriched sulphonic acid or enantiomerically
enriched phosphoric acid.
3. Process according to Claim 1, characterized in that the enantiomerically
enriched carboxylic acid used is an enantiomerically enriched hydroxy-
20 carboxylic acid or its derivatives, an enantiomerically enriched substituted
propionic acid, an enantiomerically enriched N-protected amino acid or
enantiomerically enriched menthol derivative.
4. Process according to one or more of Claim 1, characterized in that (L)-(+)-
25 lactic acid, (L)-(-)-malic acid, (L)-(-)-tartaric acid or their derivatives, (S)-
(-)-phenylcarbamoyllactic acid, (-)-O,O'-dibenzoyl-(L)-tartaric acid, (-)-di-
O-p-toluyyl-(L)-tartaric acid, (S)-(+)-mandelic acid, (S)-methoxy-
phenylacetic acid, gulonic acids, (S)-(+)-6-methoxy- -methyl-2-
naphthylacetic acid, (S)-(+)-2-(4-isobutylphenyl)-propionic acid, 2-(2-

- fluoro-4-biphenyl)-propionic acid, (L)-N-Boc-alanine, (L)-N-Boc-aspartic acid, (L)-N-Boc-histidine, (L)-N-Boc-isoleucine, (L)-N-Boc-leucine, (L)-N-Boc-methionine, (L)-N-Boc-phenylalanine, (L)-N-Boc-proline, (L)-N-Boc-serine, (L)-N-Boc-threonine, (L)-N-Boc-tyrosine, (L)-N-Boc-valine, (L)-N-acetyl-leucine, (-)-menthoxyacetic acid or (S)-(-)-2-pyrrolidinone-5-carboxylic acid or their respective enantiomers are employed.
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5. Process according to Claim 1 for the obtainment of (S)-enantiomerically enriched 3-aminopentanenitrile or its salts, characterized in that the enantiomerically enriched carboxylic acid employed is (S)-methoxyphenyl-acetic acid, (-)-menthoxyacetic acid or (S)-(-)-2-pyrrolidinone-5-carboxylic acid.
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6. Process according to Claim 1 for the obtainment of (R)-enantiomerically enriched 3-aminopentanenitrile or its salts, characterized in that the enantiomerically enriched carboxylic acids employed are substituted propionic acids or N-protected amino acid derivatives.
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7. Process according to Claim 1, characterized in that the reaction in step 1) is carried out at a temperature in the range from 0°C up to the decomposition temperature of the reactants.
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8. Process according to Claim 1, characterized in that the reaction in step 1) is carried out in the presence of polar or non-polar organic solvents.
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9. Process according to Claim 1, characterized in that 0.1 - 1 equivalent of the enantiomerically enriched organic acid, is employed.

10. Process according to Claim 1, characterized in that the conversion of the diastereomeric salt into the enantiomerically enriched 3-aminopentanenitrile in step 3) is carried out by reaction of the diastereomeric salt with a base which is stronger than the amine function in 3-amino-pentanenitrile, .
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11. Process according to Claim 1 for the obtainment of a salt of the enantiomerically enriched 3-aminopentanenitrile, characterized in that the obtainment of the salt of the enantiomerically enriched 3-aminopentanenitrile in step 3) is carried out by reaction of the diastereomeric salt with an acid which is stronger than the enantiomerically enriched organic acid employed in step 1), with formation of the enantiomerically enriched 3-aminopentanenitrile salt of this acid.
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12. Process according to Claim 11 for the obtainment of the chloride, bromide, sulphate or methanesulphonate salt of the enantiomerically enriched 3-aminopentanenitrile, characterized in that in step 3) hydrochloric acid, hydriodic acid, hydrobromic acid, hydrofluoric acid, sulphuric acid, nitric acid, perchloric acid, phosphoric acid or methanesulphonic acid is employed.
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13. Process according to Claim 1, characterized in that the separation of the diastereomeric salt from the reaction mixture in step 2) is carried out by filtering off.
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14. Process according to Claim 13, characterized in that the reaction mixture which remains after filtering the diastereomeric salt in step 2) is worked up for the purpose of obtainment of the second diastereomeric salt.

15. Process according to Claim 1, characterized in that the diastereomeric salt separated from the reaction mixture in step 2) is additionally subjected to one or more recrystallizations before carrying out step 3).